

# Author Index

## A

- Allan, Ralph E.: Determination of Zinc in Food, Urine, Air and Dust by Atomic Absorption. September-October, p. 469
- Alpaugh, E. L.: Ventilation Requirements for Gas-Metal-Arc Welding Versus Covered-Electrode Welding. November-December, p. 551
- Arveson, Judith S.: A System for Appraising Airborne Populations of Pollens and Spores. May-June, p. 293
- Avera, C. B., Jr.: Electronic Flow Regulation of High-Volume Air Samplers. July-August, p. 397
- Ayer, Howard E.: Size-Selective Gravimetric Sampling in Dusty Industries. July-August, p. 336

## B

- Balzer, L. LeRoy: The Work Environment of Insulating Workers. May-June, p. 222
- Baratta, E. J.: Collection and Determination of Iodine-131 in the Air. March-April, p. 159
- Barber, Donald E.: Beta, Gamma, and X-Radiation Sensitivity of a Nuclear Track Film. July-August, p. 358
- A Statistical Analysis of Data from Film Badge Performance Tests. September-October, p. 482
- Bartleson, C. J.: Retinal Burns from Intense Light Sources. September-October, p. 415
- Barton, Richard K.: A Technique for Determining Penetration as a Function of Particle Diameter. May-June, p. 252
- Beal, R. J.: A Supplied Air Hood for Protection Against Very Toxic Air Contaminants. March-April, p. 165
- Birnbaum, H. A.: The Toxicology of the Pyrolysis Products of Polychlorotrifluoroethylene. January-February, p. 61
- Bokowski, D. L.: Rapid Determination of Beryllium by a Direct Reading Atomic Absorption Spectrophotometer. September-October, p. 474
- Borgwardt, R. H.: Reactivity of Selected Limestones and Dolomites with Sulfur Dioxide. March-April, p. 152
- Bovee, H. H.: Study of Air Quality and Contaminant Analysis for Work Under Compressed Air. September-October, p. 432
- Breyse, Peter A.: Study of Air Quality and Contaminant Analysis for Work Under Compressed Air. September-October, p. 432
- Brown, Byron W.: A Statistical Analysis of Data from Film Badge Performance Tests. September-October, p. 482
- Burgess, William A.: Comparative Evaluation of Three Aerosol Sensing Methods. March-April, p. 123

## C

- Cares, Janet Walkley: The Determination of Oxides of Sulfur by X-Ray Emission Spectrometry. July-August, p. 386
- Determination of Formaldehyde by the Chromotropic Acid Method in the Presence of Oxides of Nitrogen. July-August, p. 405
- The Quantitative Determination of Airborne Metallic Dusts and Fumes by Using X-Ray Spectrometry. September-October, p. 463
- Carter, Morgan: "Free Silica (Quartz) Analysis by X-Ray Diffraction Utilizing the Pellet Technique. November-December, p. 632
- Cember, H.: Distribution of Mercury Among Blood Fractions and Serum Proteins. May-June, p. 233
- Charot, G. E.: Collection and Determination of Iodine-131 in the Air. March-April, p. 159
- Chase, Richard B.: The Predictability of Heart Rate in Sequential Work. September-October, p. 490
- Chatigny, M. A.: Biohazard Determination of Crowded Living-Working Spaces: Airborne Bacteria Aboard Two Naval Vessels. November-December, p. 574
- Chow, H. Y.: Operating Characteristics of Some Compressed-Air Nebulizers. January-February, p. 66
- Cholak, Jacob: The Air Transport of Lead Compounds Present in Automobile Exhaust Gases. November-December, p. 562
- Coleman, W. Emile: The Identification of Toxic Compounds in the Pyrolysis Products of Polytetrafluoroethylene (PTFE). January-February, p. 33
- The Toxicity of Polytetrafluoroethylene Pyrolysis Products—Including Carbonyl Fluoride and a Reaction Product, Silicon Tetrafluoride. January-February, p. 41
- The Particles Resulting from Polytetrafluoroethylene

(PTFE) Pyrolysis in Air. January-February, p. 54

- The Toxicology of the Pyrolysis Products of Polychlorotrifluoroethylene. January-February, p. 61
- Cook, Warren A.: Determination of Ethyl Benzene and Styrene in Air by Ultraviolet Spectrophotometry. May-June, p. 238
- Cooper, W. Clark: The Work Environment of Insulating Workers. May-June, p. 222
- Courneya, W. J.: A Supplied Air Hood for Protection Against Very Toxic Air Contaminants. March-April, p. 165
- Crabbe, John V.: Metal and Mineral Concentrations in Lungs of Bituminous Coal Miners. March-April, p. 106
- Cralley, L. J.: Fibrous and Mineral Content of Cosmetic Talcum Products. July-August, p. 350
- Source and Identification of Respirable Fibers. March-April, p. 129
- Characterization and Solubility of Metals Associated with Asbestos Fibers. November-December, p. 569
- Custer, James L.: A Survey of Mercury Vapor Hazards in Hospitals. March-April, p. 186

## D

- Dauer, Maxwell: A Comparison of Leak Test Procedures for Sealed Radium Sources. May-June, p. 279
- Davis, Irving H.: Size-Selective Gravimetric Sampling in Dusty Industries. July-August, p. 336
- Dobrogorski, O. J.: Experimental Evaluation of the Threshold Limit of Cristobalite—Calcined Diatomaceous Earth. May-June, p. 211
- Donlen, R. J.: Collection and Determination of Iodine-131 in the Air. March-April, p. 159

## E

- Ede, Lorie: Occupational Health Legislation: The Need for Review. September-October, p. 495
- El-Dakhakhny, Abdel-Aziz: Exposure to Noise in the Textile Industry of the U.A.R. November-December, p. 541
- Ettinger, H. J.: Industrial Hygiene Practices Guide—Laboratory Hood Ventilation. November-December, p. 611

## F

- Fassett, D. W.: The Determination of a Sensory Response to Alkyl 2-Cyanoacrylate Vapor in Air. November-December, p. 558
- Faulkner, A.: Distribution of Mercury Among Blood Fractions and Serum Proteins. May-June, p. 233
- Felton, Theodore A.: Ozone—A Cinema Production. November-December, p. 582
- First, M. W.: Industrial Hygiene Practices Guide—Laboratory Hood Ventilation. November-December, p. 611
- Frankenberg, T. T.: High Stacks for the Diffusion of Sulfur Dioxide and Other Gases Emitted by Electric Power Plants. March-April, p. 181
- Fraser, D. A.: Experimental Evaluation of the Threshold Limit of Cristobalite—Calcined Diatomaceous Earth. May-June, p. 211
- Frierson, Wallace B.: Protection Against Toxic Rocket Fuels. September-October, p. 456

## G

- Gallagher, P.: Distribution of Mercury Among Blood Fractions and Serum Proteins. May-June, p. 233
- Gisclard, J. Brennan: A Pneumatic Control Device for Preparing and Dispensing Gas Mixtures. May-June, p. 248
- Gleason, Robert P.: Exposure to Copper Dust. September-October, p. 461
- Goldman, Leon: Investigative Studies of Plasma Torch Hazards. July-August, p. 381
- Gorski, Charles H.: The Particles Resulting from Polytetrafluoroethylene (PTFE) Pyrolysis in Air. January-February, p. 54
- Groth, D. H.: Fibrous and Mineral Content of Cosmetic Talcum Products. July-August, p. 350
- Gruber, Charles W.: Wind Tunnel Evaluation of Adhesive-Coated Cylinders as Collection Media in Particulate Sampling. July-August, p. 343

## H

- Halpin, Walter R.: Determination of Halogenated and Aromatic Hydrocarbons in Air by Charcoal Tube and Gas Chromatography. July-August, p. 390
- Hammond, S. E.: Americium and Plutonium Urine Excretion Following Acute Inhalation Exposures to High Fired Oxides. March-April, p. 169
- Hannan, David G.: Sorbents and Catalysts for Respirator Cartridges and Gas Mask Canisters. March-April, p. 136
- Harrington, R. E.: Reactivity of Selected Limestones and Dolomites with Sulfur Dioxide. March-April, p. 152
- Haughey, Francis J.: An Experimental System for Aerosol Research. May-June, p. 268
- Hazard, W. G.: Cummings Memorial Lecture: To Reach—or Not to Reach—For a Star. July-August, p. 317
- Heldman, D. R.: A Stochastic Model Describing Bacterial Aerosol Concentration in Enclosed Spaces. May-June, p. 285
- Hosey, Andrew D.: Occupational Health Legislation: The Need for Review. September-October, p. 495
- Howard, Olin H.: Simultaneous Determination of Uranium, Its Isotopes, and Alpha Activity in Urine by Mass Spectrometry. July-August, p. 335
- Hoye, Robert C.: Laser Destruction of Experimental Tumors: State of the Art and Protection of Personnel. March-April, p. 173
- Hutton, P. H.: Industrial Noise Control Is Practical. September-October, p. 499

## I

- Irvine, C. H.: Maximum Frequency of Lift Acceptable to Male Industrial Workers. November-December, p. 531

## J

- James, Kenneth E.: A Statistical Analysis of Data from Film Badge Performance Tests. September-October, p. 462
- Jenca, Cecelia C.: Colorimetric Personal Dosimeter for Hydrazine Fuel Handlers. March-April, p. 162
- Jones, Herbert H.: Farm Equipment Noise Exposure Levels. March-April, p. 146
- American Conference of Governmental Industrial Hygienists' Proposed Threshold Limit Value for Noise. November-December, p. 537

## K

- Keenan, Robert G.: Metal and Mineral Concentrations in Lungs of Bituminous Coal Miners. March-April, p. 106
- Source and Identification of Respirable Fibers. March-April, p. 129
- Characterization and Solubility of Metals Associated with Asbestos Fibers. November-December, p. 569
- Keller, J. D.: An Instrument for Sizing and Counting Airborne Particles. May-June, p. 257
- Kepler, M. L.: Toxicity of Fluorine Short-Term Inhalation. January-February, p. 10
- Ketcham, Alfred S.: Laser Destruction of Experimental Tumors: State of the Art and Protection of Personnel. March-April, p. 173
- Key, Marcus M.: Fibrous and Mineral Content of Cosmetic Talcum Products. July-August, p. 350
- Investigative Studies of Plasma Torch Hazards. July-August, p. 381
- King, J. M.: The Mammalian Toxicity of Methacrylonitrile. May-June, p. 202
- Kinhead, E. R.: The Mammalian Toxicity of Methacrylonitrile. May-June, p. 202
- Kinser, Richard E.: Metal and Mineral Concentrations in Lungs of Bituminous Coal Miners. March-April, p. 106
- Separation and Analysis of the Less Than 10-Micron Fractions of Industrial Dusts. July-August, p. 364
- Characterization and Solubility of Metals Associated with Asbestos Fibers. November-December, p. 569
- Kupel, Richard E.: Experimental Method for Evaluating the Decomposition of Fluorocarbon Plastics by Heat. January-February, p. 27
- The Identification of Toxic Compounds in the Pyrolysis Products of Polytetrafluoroethylene (PTFE). January-February, p. 33
- Separation and Analysis of the Less Than 10-Micron Fractions of Industrial Dusts. July-August, p. 364

Characterization and Solubility of Metals Associated with Asbestos Fibers. November-December, p. 569

- Kusian, Ross N.: Respiratory Protection Program at a Nuclear Research Facility. March-April, p. 140
- Kwon, B. K.: The Inhalation Toxicity of Pyrolysis Products of Polytetrafluoroethylene Heated Below 500 Degrees Centigrade. January-February, p. 19

## L

- Lagerquist, C. R.: Americium and Plutonium Urine Excretion Following Acute Inhalation Exposures to High Fired Oxides. March-April, p. 169
- Lainhart, William S.: Source and Identification of Respirable Fibers. March-April, p. 129
- Fibrous and Mineral Content of Cosmetic Talcum Products. July-August, p. 350
- Lane, William C.: The Toxicity of Polytetrafluoroethylene Products—Including Carbon Fluoride and a Reaction Product, Silicon Tetrafluoride. January-February, p. 41
- Larkin, Robert L.: The Identification of Toxic Compounds in the Pyrolysis Products of Polytetrafluoroethylene (PTFE). January-February, p. 33
- Lawrence, Charles H.: Separation and Identification of Polycyclic Hydrocarbons in Rubber Dust. May-June, p. 242
- Ledbetter, Joe O.: Broad-Beam Gamma Attenuation in Thin Absorbers. January-February, p. 34
- Lefferts, D. T.: Methyl and Ethyl Mercury Compounds—Recovery from Air and Analysis. January-February, p. 79
- Lieberman, Alvin: Aerosol Rarefaction Studies. September-October, p. 444
- Ligo, R. M.: Fibrous and Mineral Content of Cosmetic Talcum Products. July-August, p. 350
- Linch, A. L.: Methyl and Ethyl Mercury Compounds—Recovery from Air and Analysis. January-February, p. 79
- Lipera, Joe: Respiratory Protection Program at a Nuclear Research Facility. March-April, p. 140
- Lumpkins, Earl D.: A System for Appraising Airborne Populations of Pollens and Spores. May-June, p. 293
- Luxon, Stuart G.: Recent Developments of Dust Respirators in the United Kingdom. July-August, p. 333
- Lynch, Jeremiah R.: Source and Identification of Respirable Fibers. March-April, p. 129
- Characterization and Solubility of Metals Associated with Asbestos Fibers. November-December, p. 569

## M

- MacFarland, H. N.: The Pyrolysis Products of Plastics—Problems in Defining Their Toxicity. January-February, p. 7
- Magill, Paul L.: A System for Appraising Airborne Populations of Pollens and Spores. May-June, p. 293
- Major, Andrew J.: A Survey of Mercury Vapor Hazards in Hospitals. March-April, p. 186
- Manganelli, Raymond M.: An Experimental System for Aerosol Research. May-June, p. 268
- Mann, J. R.: Americium and Plutonium Urine Excretion Following Acute Inhalation Exposures to High Fired Oxides. March-April, p. 169
- Martens, A. E.: An Instrument for Sizing and Counting Airborne Particles. May-June, p. 257
- Mauer, Patricia A.: Metal and Mineral Concentrations in Lungs of Bituminous Coal Miners. March-April, p. 106
- Separation and Analysis of the Less Than 10-Micron Fractions of Industrial Dusts. July-August, p. 364
- McConaughy, Paul A.: Colorimetric Personal Dosimeter for Hydrazine Fuel Handlers. March-April, p. 162
- McGee, W. A.: The Determination of a Sensory Response to Alkyl 2-Cyanoacrylate Vapor in Air. November-December, p. 558
- McMillan, Lofton: Biochemical Changes Associated with Toxic Exposures to Polytetrafluoroethylene Pyrolysis Products. January-February, p. 49
- Menker, Donald F.: A Comparison of Leak Test Procedures for Sealed Radium Sources. May-June, p. 279
- Mercer, T. T.: Operating Characteristics of Some Compressed-Air Nebulizers. January-February, p. 66
- Merkle, C. R. E., Jr.: Sorbents and Catalysts for Respirator Cartridges and Gas Mask Canisters. March-April, p. 136
- Merrett, K. W.: The Chalk River Nuclear Laboratories Respirator Program. November-December, p. 601
- Miller, Franklin A.: Determination of Diethanolamine and 2-Methylaminoethanol in Air. July-August, p. 411

- Miller, Frederick C.: A Survey of Mercury Vapor Hazards in Hospitals. March-April, p. 186
- Mitchell, R. N.: Industrial Hygiene Practices Guide-Laboratory Hood Ventilation. November-December, p. 611
- Morris, Jerry O.: A Comparison of Leak Test Procedures for Sealed Radium Sources. May-June, p. 279
- Morse, Kenneth M.: Community Noise—The Industrial Aspect. July-August, p. 368

## N

- Nau, Carl A.: Separation and Identification of Polycyclic Hydrocarbons in Rubber Dust. May-June, p. 242
- Nelson, G. O.: The Halide Meter—The Myth and the Machine. November-December, p. 586
- Noro, Leo: Yant Memorial Lecture: Occupational and "Non-occupational" Asbestosis in Finland. May-June, p. 195
- Noweir, Madbuli H.: Exposure to Noise in the Textile Industry of the U.A.R. November-December, p. 541

## O

- Oberg, Maurice: A Survey of the Petroleum Solvent Inhalation Exposure in Detroit Dry Cleaning Plants. November-December, p. 547
- Oglesby, F. L.: The Determination of a Sensory Response to Alkyl 2-Cyanoacrylate Vapor in Air. November-December, p. 558
- Ornosky, Martin: Coproporphyrinuria and Urine-Lead Findings: Fifteen Years of Experience. May-June, p. 228
- Oser, James L.: Farm Equipment Noise Exposure Levels. March-April, p. 146

## P

- Palmisano, William A.: The Evaluation of Laser Hazards. September-October, p. 425
- Paulus, Harold J.: Continuous Monitoring of Aerosols Over the 0.001- to 10-Micron Spectrum. March-April, p. 111
- Petersen, Carl M.: Continuous Monitoring of Aerosols Over the 0.001- to 10-Micron Spectrum. March-April, p. 111
- Phillippo, K. A.: Ventilation Requirements for Gas-Metal-Arc Welding Versus Covered-Electrode Welding. November-December, p. 551
- Phipps, Frederick C.: Biochemical Changes Associated with Toxic Exposures to Polytetrafluoroethylene Pyrolysis Products. January-February, p. 49
- Pierce, J. O.: Determination of Zinc in Food, Urine, Air and Dust by Atomic Absorption. September-October, p. 463
- Plantz, Charles A.: Colorimetric Personal Dosimeter for Hydrazine Fuel Handlers. March-April, p. 162
- Potter, A. E.: Reactivity of Selected Limestones and Dolomites with Sulfur Dioxide. March-April, p. 152
- Powell, C. H.: Investigative Studies of Plasma Torch Hazards. July-August, p. 381
- Pozzani, U. C.: The Mammalian Toxicity of Methacrylonitrile. May-June, p. 202
- Pritchard, William L.: Wind Tunnel Evaluation of Adhesive-Coated Cylinders as Collection Media in Particulate Sampling. July-August, p. 343
- Pulsifer, H. C.: Ventilation Requirements for Gas-Metal-Arc Welding Versus Covered-Electrode Welding. November-December, p. 551

## R

- Raabe, Otto G.: The Dilution of Monodisperse Suspensions for Aerosolization. September-October, p. 439
- Raleigh, R. L.: The Determination of a Sensory Response to Alkyl 2-Cyanoacrylate Vapor in Air. November-December, p. 558
- Reid, Frank H.: Determination of Halogenated and Aromatic Hydrocarbons in Air by Charcoal Tube and Gas Chromatography. July-August, p. 390
- Reist, Parker C.: A Comparative Evaluation of Three Aerosol Sensing Methods. March-April, p. 123
- Revoir, William H.: Performance Characteristics of Dust Respirators, Bureau of Mines Approved and Non-Approved Types. July-August, p. 322
- Riggle, Grant C.: Laser Destruction of Experimental Tumors: State of the Art and Protection of Personnel. March-April, p. 173
- Riley, Edward C.: Estimation of Atmospheric Concentrations of Volatile Compounds from Surface Coatings by Means of a Laboratory Model, September-October, p. 450

## S

- Schafer, Lawrence J.: The Air Transport of Lead Compounds Present in Automobile Exhaust Gases. November-December, p. 562
- Scheel, Lester D.: Experimental Method for Evaluating the Decomposition of Fluorocarbon Plastics by Heat. January-February, p. 27
- The Identification of Toxic Compounds in the Pyrolysis Products of Polytetrafluoroethylene (PTFE). January-February, p. 33
- The Toxicity of Polytetrafluoroethylene Pyrolysis Products—Including Carbonyl Fluoride and a Reaction Product, Silicon Tetrafluoride. January-February, p. 41
- Biochemical Changes Associated with Toxic Exposures to Polytetrafluoroethylene Pyrolysis Products. January-February, p. 49
- The Particles Resulting from Polytetrafluoroethylene (PTFE) Pyrolysis in Air. January-February, p. 54
- The Toxicology of the Pyrolysis Products of Polychlorotrifluoroethylene. January-February, p. 61
- Schreibis, W. J.: Laser Eye Protection Goggles. September-October, p. 504
- Schumann, Charles E.: Wind Tunnel Evaluation of Adhesive-Coated Cylinders as Collection Media in Particulate Sampling. July-August, p. 343
- Shields, C. P.: The Analysis of Submicrogram Amounts of Mercury in Tissues. January-February, p. 87
- Simmons, Robert B. V.: The Douglas Point Air-Supplied Vault Suit. November-December, p. 603
- Sliney, David H.: The Evaluation of Laser Hazards. September-October, p. 425
- Smallwood, A. W.: Metal and Mineral Concentrations in Lungs of Bituminous Coal Miners. March-April, p. 106
- Smith, Charles G.: Separation and Identification of Polycyclic Hydrocarbons in Rubber Dust. May-June, p. 242
- Snook, S. H.: Maximum Frequency of Lift Acceptable to Male Industrial Workers. November-December, p. 531
- Stalzer, R. F.: Methyl and Ethyl Mercury Compounds—Recovery from Air and Analysis. January-February, p. 79
- Stewart, Elmon Bill: Broad-Beam Gamma Attenuation in Thin Absorbers. January-February, p. 94
- Stokinger, H. E.: Experimental Evaluation of the Threshold Limit of Cristobalite—Calcined Diatomaceous Earth. May-June, p. 211
- Suissa, L. W.: Toxicity of Fluorine Short-Term Inhalation. January-February, p. 10
- Sutton, Glen W.: Size-Selective Gravimetric Sampling in Dusty Industries. July-August, p. 336

## T

- Taheri, Mansoor: A Technique for Determining Penetration as a Function of Particle Diameter. May-June, p. 232
- Thomas, Randi, L.: Retention of Cesium-137 and Strontium-90 Administered in Lethal Doses to Rats. November-December, p. 593
- Thomas, R. G.: Retention of Cesium-137 and Strontium-90 Administered in Lethal Doses to Rats. November-December, p. 593
- Tillery, M. I.: Operating Characteristics of Some Compressed Air Nebulizers. January-February, p. 66
- Toribara, T. Y.: The Analysis of Submicrogram Amounts of Mercury in Tissues. January-February, p. 87

## V

- Vaichulis, E. M. K.: Biohazard Determination of Crowded Living-Working Spaces: Airborne Bacteria Aboard Two Naval Vessels. November-December, p. 574
- Valic, Fedor: Exposure to Noise in the Textile Industry of the U.A.R. November-December, p. 541
- Vander Kolk, Alvin L.: Free Silica (Quartz) Analysis by X-ray Diffraction Utilizing the Pellet Technique. November-December, p. 632

## W

- Wagner, W. D.: Experimental Evaluation of the Threshold Limit of Cristobalite—Calcined Diatomaceous Earth. May-June, p. 211
- Waritz, R. S.: The Inhalation Toxicity of Pyrolysis Products of Polytetrafluoroethylene Heated Below 500 Degrees Centigrade. January-February, p. 19

- White, J. M.: A Supplied Air Hood for Protection Against Very Toxic Air Contaminants. March-April, p. 165  
 The Chalk River Nuclear Laboratories Respirator Program. November-December, p. 601  
 Williams, Haven L.: A Survey of Mercury Vapor Hazards in Hospitals. March-April, p. 186  
 Wright, D. N.: Biohazard Determination of Crowded Living-Working Spaces: Airborne Bacteria Aboard Two Naval Vessels. November-December, p. 574  
 Wright, P. G.: Experimental Evaluation of the Threshold Limit of Cristobalite—Calcined Diatomaceous Earth. May-June, p. 211  
 Wright, S. R.: Retention of Cesium-137 and Strontium-90 Administered in Lethal Doses to Rats. November-December, p. 593

## Y

- Yamamoto, Robert K.: Determination of Ethyl Benzene and Styrene in Air by Ultraviolet Spectrophotometry. May-June, p. 238  
 Yeager, D.: Determination of Zinc in Food, Urine, Air and Dust by Atomic Absorption. September-October, p. 469  
 The Air Transport of Lead Compounds Present in Automobile Exhaust Gases. November-December, p. —  
 Yurgilas, Vincent A.: Performance Characteristics of Dust Respirators, Bureau of Mines Approved and Non-Approved Types. July-August, p. 322

## Subject Index

## A

- absorption—see sorbents  
 acetaldehyde—Community Air Quality Guide, 505  
 acetylacetone—in beryllium detmn., 474  
 acoustical—baffles, 499  
 acrolein—Community Air Quality Guide, 505  
 adhesive—coated samplers, 343  
 aerodynamics—of aerosol cloud, 444  
 aerosols—from atomization, 439  
   —bacterial, 285  
   —charge on, 444  
   —monitoring of, 111  
   —nebulizer characteristics, 66  
   —test system, 268  
 air—bacteria in, 574  
   —detmn. of zinc in, 469  
   —ethyl benzene in, 238  
   —iodine-131 in, 159  
   —pollen and spores in, 293  
   —styrene in, 238  
 air compressor—noise from, 499  
 air flow—electronic regulator, 397  
 air nebulizers—characteristics of, 66  
 air pollution—ethylene, 627  
   —lead from autos, 562  
 air velocity—in laboratory hoods, 611  
 aldehydes—Community Air Quality Guide, 505  
 alkyl-2 cyanoacrylate—detmn. in air, 558  
   —sensory response to, 558  
 alpha activity—detmn. of, 355  
 aluminum—attenuation of gamma rays, 94  
 American Conference of Governmental Industrial Hygienists  
   —noise limit, 537  
 americium—in urine, 169  
 amosite—metals in, 569  
 analysis—of dust fractions, 364  
   —for mercury in tissue, 87  
   —of pressurized atmospheres, 432  
   —of rubber dust, 242  
   —see determination  
 Analytical Guides—perfluorobutylene, 103  
   —hexafluoropropene, 103, 104  
 analyzer—particle, 257  
 anesthetics—ethylene, 627  
 anthophyllite—metals in, 569  
 apparatus—to prepare gas mixtures, 248  
   —for study of aerosols, 444  
 arc welding—ventilation, 551  
 aromatic hydrocarbons—detmn. of, 390  
 asbestos—chromium in, 569  
   —cobalt in, 569  
   —fibers in lungs, 129  
   —in insulations, 222  
   —manganese in, 569  
   —metals in, 569  
   —nickel in, 569  
 asbestosis—in Finland, 195  
   —of insulation workers, 222  
 atomic absorption—detmn. of beryllium, 474  
   —detmn. of zinc, 469  
 attenuation—of gamma rays, 94  
 automobiles—lead from exhaust, 562

## B

- bacteria—in air, 574  
   —airborne, 285  
   —in closed spaces, 285  
   —sampling in air, 574  
 benzpyrenes—in rubber dust, 242  
 beryllium—Community Air Quality Guide, 189  
   —detmn. by atomic absorption, 474  
 beta ray—sensitivity of film, 358  
 biochemical changes—from pyrolysis products, 49  
 bituminous—miners' lung, 106  
 blood—mercury in fractions, 233  
 body burden—of radionuclides, 593  
 Bureau of Mines—respirators approved, 322  
 burns—from laser, 415  
 n-butyl methyl ketone—Hygienic Guide, 618  
 butyraldehyde—Community Air Quality Guide, 505

## C

- calcined diatomaceous earth—TLV, 211  
 calcining—effect on sorbents, 152  
 calculation—of aerosol concentrations, 439  
 calibration—of low flow meter, 248  
 carbon dioxide—in pressurized atmospheres, 432  
   —from pyrolysis, 33  
 carbon monoxide—in pressurized atmospheres, 432  
   —protective suit for, 605  
   —from welding, 551  
 carbonyl chloride—Hygienic Guide, 308  
 carbonyl fluoride—from pyrolysis, 27, 33  
   —toxicity of, 33, 41  
 carbon tetrachloride—from pyrolysis, 33  
 care—of respirators, 140  
 cartridges—for respirators, 136  
 cascade impactor—aerosol tests, 268  
 cesium-137—retention of, 593  
 Chalk River Nuclear Laboratory  
   —respirator program, 601  
   —supplied air hood, 165  
 charcoal—as gas sorbent, 136  
   —radium leak test, 279  
 charcoal tube—in detmn. of hydrocarbons, 390  
 charge—on aerosols, 444  
 chemicals—laboratory storage, 611  
 chlorine dioxide—NSC data sheet, 449  
 chromatograph—detmn. of hydrocarbons, 390  
 chromium—in asbestos fibers, 569  
 chromotropic acid—method for formaldehyde, 405  
 chrysotile—metals in, 569  
 cleaning—of respirators, 140  
 coal—in lungs, 106  
 coal miners—metal in lungs, 106  
 cobalt—in asbestos fibers, 569  
 collection—of pollens and spores, 293  
   —see sampling  
 colorimetric—hydrazine dosimeter, 162  
 Community Air Quality Guide—aldehydes, 505  
   —beryllium, 189  
   —ethylene, 627  
   —iron oxide, 4  
   —ozone, 299  
   —rationale, 1

compressed air—nebulizers, 66  
 —work in, 432  
 condensation—nuclei counter, 111  
 contaminants—from surface coatings, 450  
 —in air, 574  
 control—of community noise, 368  
 —of copper dust, 461  
 —exposures to rocket fuel, 456  
 —of laser hazards, 425  
 —of noise, 499, 541  
 —of ozone exposure, 582  
 —welding fume, 551  
 cooling—of protective suit, 605  
 copper dust—exposure to, 461  
 coproporphyrinuria—from lead exposure, 228  
 cotton plug—radium leak test, 279  
 counting—aerosol particles, 111, 123  
 —particles, 257  
 cristobalite—threshold limit for, 211  
 criteria—for noise, 499  
 Cummings Memorial Lecture, 317  
 cumulative effects—of pyrolysis products, 49  
 cyanoacrylate—sensory response to, 558  
 cylindrical sampler—adhesive coated, 343

## D

decomposition—see pyrolysis  
 decontamination—of respirators, 601  
 design—of laboratory hoods, 611  
 determination—of alkyl cyanoacrylate in air, 558  
 —of alpha activity, 355  
 —of cristobalite, 211  
 —of diatomaceous earth, 211  
 —of diethanolamine, 411  
 —of ethyl benzene, 238  
 —of ethyl mercury compounds, 79  
 —of formaldehyde, 405  
 —of halide compounds, 586  
 —of hydrocarbons in air, 390  
 —of iodine-131, 159  
 —isotopes of uranium, 355  
 —of mercury in tissue, 87  
 —metal dust and fume, 463  
 —of methyl mercury compounds, 79  
 —of 2-methylaminoethanol, 411  
 —of pollens and spores, 293  
 —of sensory response, 558  
 —of styrene, 238  
 —of sulfur dioxide, 386  
 —of sulfur trioxide, 386  
 —of sulfuric acid, 386  
 —uranium in urine, 355  
 —by x-ray spectrometer, 463  
 diatomaceous earth—threshold limit for, 211  
 dichlorodifluoromethane—Hygienic Guide, 513  
 diethanolamine—detmn. in air, 411  
 —Hygienic Guide, 312  
 diffraction—x-ray analysis, 463, 632  
 diffusion—from high stack, 181  
 difluorodichloromethane—Hygienic Guide, 513  
 dilution formula—for aerosols, 439  
 direct-reading—detmn. of beryllium, 474  
 dispensing—of gas mixtures, 248  
 distribution—particle size, 111, 123  
 —particles in air, 444  
 dolomite—for sorption of  $\text{SO}_2$ , 152  
 dosimeter—for hydrazine, 162  
 dry cleaning—solvent exposures in, 547  
 dust—of copper, 461  
 —detmn. of, 463  
 —detmn. of zinc in, 469  
 —gravimetric sampling, 336  
 —less than 10-microns, 364  
 —in miner's lungs, 106  
 —respirators for, 322  
 —rubber, 242  
 —size-selective sampling, 336  
 —see particles and aerosols  
 dust fractions—separation and analysis, 364  
 dynamic—strength of man, 531

## E

efficiency—of particle samplers, 252  
 —of respirators, 322  
 electric motor—noise from, 499  
 electrical—particle counters, 111

electrodeposition—radium leak test, 279  
 electrodes—fumes from, 551  
 —in halide meter, 586  
 —for welding, 551  
 electron microscopy—of pyrolysis products, 54  
 electro-optical—particle analyzer, 257  
 electrostatic—effect on aerosol cloud, 444  
 energy—intense light, 415, 425  
 energy density—of lasers, 425  
 ergonomics—of lifting, 531  
 ethanalamines—Hygienic Guide, 312  
 ethene—Community Air Quality Guide, 627  
 ethyl benzene—detmn. by UV, 238  
 ethyl mercury compounds—in air, 79  
 —detmn. of, 79  
 ethyl silicate—Hygienic Guide, 624  
 ethylene—Community Air Quality Guide, 627  
 evaluation—of community noise, 368  
 —exposures from paints, 450  
 —of laser hazard, 425  
 —of pressurized atmospheres, 432  
 —of respirators, 322  
 evaporation—from surface coatings, 450  
 excretion—of americium, 169  
 —of plutonium, 169  
 exhaust—from laboratory hoods, 611  
 —lead in automobile, 562  
 exposure—to americium, 169  
 —to asbestos, 222  
 —to copper dust, 461  
 —in dry cleaning, 547  
 —to fluorine, 10  
 —to high-fired oxide, 169  
 —to noise, 146, 541  
 —to ozone, 582  
 —to petroleum solvents, 547  
 —to plutonium, 169  
 —to rocket fuel, 456  
 —to welding fume, 551  
 eye—hazards from plasma torch, 381  
 —injury by laser, 415, 425  
 —protection from lasers, 504

## F

face-piece—of respirators, 333  
 face velocity—of laboratory hoods, 611  
 fatigue—from lifting, 531  
 feces—cesium-137 in, 593  
 —strontium-90 in, 593  
 fibers—in insulation, 222  
 —nature in lungs, 129  
 —penetration by particles, 252  
 —in talc products, 350  
 —see asbestos  
 film badge—performance tests, 482  
 —radium leak test, 279  
 filters—of laser goggles, 504  
 —UV in halide meter, 586  
 fitting—of respirators, 333, 601  
 flow meter—calibration device, 248  
 fluoranthene—in rubber dust, 242  
 fluoride—urinary excretion, 49  
 —from welding, 551  
 fluorine—toxicity of, 10  
 fluorocarbon No. 11—Hygienic Guide, 517  
 fluorocarbon No. 12—Hygienic Guide, 513  
 fluorocarbon No. 113—Hygienic Guide, 521  
 fluorocarbons—pyrolysis of, 19, 27, 33, 41, 49, 54  
 fluorotrichloromethane—Hygienic Guide, 517  
 food—detmn. of zinc in, 469  
 formaldehyde—Community Air Quality Guide, 505  
 —detmn. in air, 405  
 formula—for dilution of aerosols, 439  
 free silica—analysis by x-ray, 632  
 —in miner's lungs, 106  
 —pellet technique detmn, 632  
 frequency—of lifting, 531  
 fuel—for rockets, 456  
 fumes—detmn. of, 463  
 —from plasma torch, 381

## G

gamma ray—attenuation of, 94  
 —sensitivity of film, 358  
 gas chromatography—detmn. of hydrocarbons, 390  
 —detmn. of pyrolysis products, 27, 54  
 gas-metal—welding control, 531



- gases—from plasma torch, 381
- preparing mixtures of, 248
- glass—attenuation of gamma rays, 94
- Goetz aerosol spectrometer—use of, 252
- goggles—characteristics of lenses, 504
- laser protection, 504
- gravimetric sampling—of dust, 336
- guidelines—drafting of, 495
- guides—to hood design, 611
- see Analytical Guides
- see Community Air Quality Guides
- see Hygienic Guides
- see Industrial Hygiene Practices

## H

- hair, zinc in, 469
- halide meter—modification of, 586
- theory of, 586
- halogenated hydrocarbons—detmn. of, 390
- hearing—and noise levels, 541
- statistics, 201
- heart—rate predictability, 490
- heated-wire—particle sensor, 127
- height—of lift, 531
- helmet—for protective suit, 605
- hexafluoropropene—Analytical Guide, 103, 104
- hexanone—Hygienic Guide, 618
- high-volume samplers—regulator for, 397
- hoods—laboratory, 165, 611
- supplied air, 165
- hospitals—mercury hazards, 181
- humidity—in pyrolysis of plastics, 54
- hydrazine—dosimeter for, 162
- hydrocarbons—detmn. of, 390
- in rubber dust, 242
- 2,2-bis(hydroxymethyl)-1,3-propanediol—Hygienic Guide, 101
- Hygienic Guides—n-butyl methyl ketone, 618
- carbonyl chloride, 308
- dichlorodifluoromethane, 513
- diethanolamine, 312
- difluorodichloromethane, 513
- ethanolamines, 312
- ethyl silicate, 624
- fluorocarbon No. 11, 517
- fluorocarbon No. 12, 513
- fluorocarbon No. 113, 521
- fluorotrichloromethane, 517
- 2-hexanone, 618
- 2,2-bis(hydroxymethyl)-1,3-propanediol, 101
- methyl-n-butyl ketone, 618
- monoethanolamine, 312
- nickel carbonyl, 304
- osmium, 621
- osmium tetroxide, 621
- pentaerythritol, 101
- pienylethylene, 526
- phosgene, 308
- propyl acetone, 618
- styrene monomer, 526
- styrolene, 526
- tetraethyl orthosilicate, 624
- tetraethoxysilane, 624
- tetramethylmethane, 101
- trichlorofluoromethane, 517
- trichlorotrifluoromethane, 521
- triethanolamine, 312
- trifluorotrichloromethane, 521
- vinylbenzene, 526

## I

- identification—of polycyclic hydrocarbons, 242
- impinger—for pollens and spores, 293
- inhalation—of americium, 169
- of fluorine, 10
- of plutonium, 169
- of pyrolysis products, 19, 49, 61
- instruments—air flow regulator, 397
- for particle analysis, 257
- to prepare gas mixtures, 248
- insulation—asbestos exposures, 222
- materials for, 222
- interference—in detmn. of formaldehyde, 405
- iodine-131—in air, 159
- sampling and detmn., 159
- iron oxide—Community Air Quality Guides, 4
- from welding, 551
- irradiation—of dust samples, 463
- of fume samples, 463

- irritation—of alkyl cyanoacrylate, 558
- by fluorine, 10
- isotopes—of uranium, 355

## J

- jar—radium leak test, 279

## L

- laboratory—hood design, 611
- lasers—burns from, 415, 425
- control of hazard, 425
- destruction of tumors, 173
- fume from, 173
- goggle selection, 504
- protection from, 173
- lead—air pollution, 562
- from auto exhaust, 562
- coproporphyrinuria from, 228
- in soil, 562
- in urine, 228
- leak tests—of radium sources, 279
- legislation—occupational health, 495
- lenses—for laser goggles, 504
- lift—maximum frequency of, 531
- light—retinal burns from, 415
- light scattering—particle analyzer, 257
- sensor for, 268
- limestone—for sorption of SO<sub>2</sub>, 152
- limit—for alkyl cyanoacrylate, 558
- for noise, 537
- looms—noise from, 541
- loudness—rating of, 368
- lungs—fibers in, 129
- metals and minerals in, 106

## M

- maintenance—of respirators, 140, 601
- manganese—in asbestos fibers, 569
- mass spectrometry—detmn. of pyrolysis products, 27, 33, 54
- detmn. of uranium, 355
- of uranium isotopes, 355
- measurement—of aerosol clouds, 444
- of heart rate, 490
- of work load, 490
- see determination
- medical control—of exposures to rocket fuel, 456
- mercury—detmn. in tissue, 87
- distribution in blood, 233
- in hospitals, 181
- vapor hazard, 181
- metals—in asbestos fibers, 569
- in miner's lungs, 106
- meter—halide, 586
- methacrylonitrile—toxicity of, 202
- methane—in pressurized atmospheres, 432
- 2-methylaminoethanol—detmn. in air, 411
- methyl-n-butyl ketone—Hygienic Guide, 618
- methyl-2-cyanoacrylate—sensory response to, 558
- methyl mercury compounds—in air, 79
- detmn. of, 79
- 10-micron—dust fraction, 364
- MG—welding fumes, 551
- minerals—in miners' lungs, 106
- in talc products, 350
- miners—metal in lungs, 106
- mixtures—preparation of gas, 248
- model—to study volatilization, 450
- modification—of halide meter, 586
- molecular sieves—as gas sorbents, 136
- monitoring—film badges for, 482
- hydrazine exposure, 162
- use of rocket fuel, 456
- monodisperse spheres—aerosols of, 439
- monoethanolamine—Hygienic Guide, 312
- motors—noise from, 499

## N

- National Sanitation Foundation—film badge test, 482
- nebulizers—characteristics of, 66
- neodymium laser—use of, 173
- neutron irradiation—measure of, 358
- nickel—in asbestos fibers, 569
- nickel carbonyl—Hygienic Guide, 304

nitrogen dioxide—from welding, 551  
 nitrogen oxides—catalytic fume abater, 18  
 noise—ACGIH limits, 537  
   —from air compressors, 499  
   —community standards, 368  
   —control of, 499  
   —control in industry, 368  
   —from electric motors, 499  
   —from farm equipment, 146  
   —in helmets, 605  
   —from plasma torch, 381  
   —rating methods, 368  
   —in textile industry, 541  
   —from ventilation systems, 499  
 nuclear power—protective suits in, 605  
 nuclear track film—sensitivity, 358

## O

occupational health—legislation, 495  
 odor—of alkyl cyanoacrylate, 558  
   —see sensory response  
 optical—particle counters, 111  
 osmium tetroxide—Hygienic Guide, 621  
 osmium—Hygienic Guide, 621  
 oxidant—Community Air Quality Guide, 299  
 oxides of sulfur—detmn. of, 386  
   —sorption of, 152  
 ozone—Community Air Quality Guide, 299  
   —in projection booth, 582  
   —from welding, 551  
   —from xenon lamp, 582

## P

paints—see surface coatings  
 particle counters—acoustical, 125  
   —condensation, 111  
   —electrical, 111, 123  
   —heated-wire, 127  
   —optical, 111  
   —piezoelectric, 123  
 particle size—distribution, 444  
   —monitoring of, 111, 123  
   —from nebulizers, 66  
 particles—collection efficiency, 252  
   —colony forming, 574  
   —deposition on adhesives, 343  
   —penetration of filters, 252  
   —from plastic pyrolysis, 54  
   —in ship air, 574  
   —sizing and counting, 257  
   —in tissue plume, 173  
 particulates—monitoring of, 111, 123  
   —sampling for, 343  
 pathology—of carbonyl fluoride, 41  
   —of fluorine exposures, 10  
   —of silicon tetrafluoride, 41  
 pellet—technique for x-ray analysis, 632  
 penetration—by particles, 252  
 pentaerythritol—Hygienic Guide, 101  
 petroleum—dry cleaning solvents, 547  
 perfluoroisobutylene—Analytical Guide, 103  
 permeation tube—for air flow calibration, 79  
 phenylethylene—Hygienic Guide, 526  
 phosgene—Hygienic Guide, 308  
 photochemical oxidant—Community Air Quality Guide, 299  
 physiology—of lifting, 531  
 piperidine-pyridine—analytical method, 103, 104  
 plants—damage by ethylene, 627  
 plasma torch—hazards of, 381  
 plastics—pyrolysis of, 7, 19, 27, 33, 49, 54, 61  
 plume—from laser on tissue, 173  
 plutonium—in urine, 169  
 pollens—quantitative evaluation, 293  
 polycyclic hydrocarbons—in rubber dust, 242  
 polytetrafluoroethylene—pyrolysis products, 19, 33, 41, 49, 54, 61  
 power plant—gases from, 181  
 prediction—of heart rate, 490  
 preparation—of gas mixtures, 248  
 pressurized atmosphere—in work place, 432  
 program—of 1968 AIHA meeting, 194  
   —of noise control, 499  
 projectors—ozone from, 582  
 propellants—control of exposure, 456  
 propionaldehyde—Community Air Quality Guide, 505  
 propyl acetone—Hygienic Guide, 618  
 protective clothing—supplied air suit, 605

protein bound—mercury, 233  
 psychophysical—methodology, 531  
 pyrene—in rubber dust, 242  
 pyrolysis—polytetrafluoroethylene, 27, 33, 41  
   —products of plastics, 7, 19, 27, 33, 49, 54, 61  
   —temperature of, 19, 33

## R

radiation—film badge tests, 482  
   —laser, 415, 425  
 radionuclides—body burden of, 593  
   —retention of, 593  
 radium—leak tests, 279  
 rarefaction—of aerosol cloud, 444  
 rate—heart, 490  
 rating—noise nuisance, 368  
 rationale—of Community Air Quality Guides, 1  
 rats—retention of  $^{137}\text{Cs}$ , 593  
   —retention of  $^{90}\text{Sr}$ , 593  
 regulation—of air samplers, 397  
 regulations—dry cleaning, 547  
   —noise, 368  
   —occupational health, 495  
 respirators—care program, 140  
   —evaluation of, 322  
   —fitting of, 141, 601  
   —maintenance of, 601  
   —new developments, 333  
   —performance of, 322  
   —supplied air hood, 165  
   —in United Kingdom, 333  
 retention—of cesium-137, 593  
   —of strontium-90, 593  
 retina—burn by laser, 415, 425  
 rocket fuels—control of exposure, 456  
 rubber dust—polycyclic hydrocarbons in, 242

## S

sampler—flow regulator, 397  
 sampling—by adhesive-coated cylinder, 343  
   —alkyl cyanoacrylate, 558  
   —for bacteria, 574  
   —for cristobalite, 211  
   —for diatomaceous earth, 211  
   —for ethyl benzene, 238  
   —for ethyl mercury compounds, 79  
   —gravimetric dust, 336  
   —of hydrocarbons in air, 390  
   —for iodine-131, 159  
   —metal dust and fume, 463  
   —for methyl mercury compounds, 79  
   —for particulates, 343  
   —pollens and spores, 293  
   —styrene in air, 238  
   —welding fume, 551  
 scintillation—radium leak test, 279  
 screening—for lead poisoning, 228  
 selenium—Bureau of Mines report, 9  
 sensor—for light scatter, 268  
 sensory response—to alkyl cyanoacrylate, 558  
 separation—of dust fractions, 364  
   —of polycyclic hydrocarbons, 242  
 serum—metals soluble in, 569  
 serum proteins—mercury in, 233  
 ships—bacteria in air, 574  
 silica gel—as gas sorbent, 136  
 silicates—as gas sorbent, 136  
 silicon tetrafluoride—from pyrolysis, 33, 41  
 simulation—of welding exposure, 551  
 size-selective sampling—of particulates, 336  
 sizing—particles, 257  
 skin hazards—from plasma torch, 381  
 soda lime—as gas sorbent, 136  
 soil—lead contamination of, 562  
 solubility—metals in asbestos, 569  
 solvents—in air, 450  
   —in dry cleaning, 547  
   —from surface coatings, 450  
 sorbents—for respirators, 136  
 sorption—of sulfur dioxide, 152  
 sound levels—of farm equipment, 146  
 spectra—in halide meter, 586  
 spectrometer—atomic absorption, 469, 474  
 spectrometry—x-ray, 463  
 spectrophotometry—ultraviolet, 238  
 spores—quantitative evaluation, 293  
 stacks—diffusion of gases, 181

- standards—for noise, 537
    - for noise limits, 369
    - see Hygienic Guides
    - see Community Air Quality Guides
    - see Analytical Guides
  - static—strength of man, 531
  - statistics—film badge tests, 482
  - steel—attenuation of gamma rays, 94
  - steel mill—lead exposure, 228
  - stochastic model—bacterial aerosol, 285
  - strontium-90—retention of, 593
  - styrene—detmn. by UV, 238
  - styrene monomer—Hygienic Guide, 526
  - styrolene—Hygienic Guide, 526
  - succinic dehydrogenase—changes in, 49
  - suit—supplied air, 605
  - sulfur dioxide—detmn. in air, 386
    - sorption of, 152
    - from stacks, 181
  - sulfur trioxide—detmn. in air, 386
  - sulfuric acid—detmn. in air, 386
  - supplied air—laboratory hoods, 611
    - respirator hood, 165
    - vault suit, 605
  - surface coatings—air contaminants from, 450
    - model to study, 450
  - suspension—of monodisperse spheres, 439
  - system—for aerosol research, 268
- T**
- talcum—fibers in, 350
    - minerals in, 350
  - Teflon®—see polytetrafluoroethylene
  - tellurium—Bureau of Mines report, 9
  - test—aerosol system, 268
    - of film badge, 482
    - radiation leaks, 279
    - of respirators, 601
  - tetraethoxy silane—Hygienic Guide, 624
  - tetraethyl orthosilicate—Hygienic Guide, 624
  - tetrafluoroethylene—see polytetrafluoroethylene
  - tetramethylolmethane—Hygienic Guide, 101
  - textiles—noise in industry, 541
  - thermal damage—to retina, 415
  - thermal decomposition—see pyrolysis
  - thin section—attenuation of gamma rays, 94
  - threshold limit—for calcined diatomaceous earth, 211
    - for cristobalite, 211
  - tissue—detmn. of mercury in, 87
  - TLV's—for noise, 537
    - see Hygienic Guides
  - toxicity—of carbonyl fluoride, 33, 41
    - of fluorine, 10
    - of methacrylonitrile, 202
    - of pyrolysis products, 7, 19, 41, 49, 61
    - of silicon tetrafluoride, 41
  - tractors—noise of, 146
  - traffic—lead in air from, 562
  - training—use of respirators, 601
  - trichlorofluoromethane—Hygienic Guide, 517
  - trichlorotrifluoroethane—Hygienic Guide, 521
  - triethanolamine—Hygienic Guide, 312
  - trifluorotrifluoroethane—Hygienic Guide, 521
  - tumors—destroy by laser, 173
  - tunnels—air quality in, 432

**U**

- ultraviolet—detmn. of ethyl benzene, 238
  - filters for, 586
  - from plasma torch, 381
  - spectrophotometry, 238
  - detmn. of styrene, 238
- United Arab Republic—textile industry, 541
- uranium—determination of, 355
  - in urine, 355
- urine—americium in, 169
  - cesium-137 in, 593
  - detmn. of uranium in, 355
  - detmn. of zinc in, 469
  - lead in, 228
  - plutonium in, 169
  - strontium-90 in, 593

**V**

- vegetation—damage by ethylene, 627
  - lead contamination of, 562
- velocity—air in hoods, 611
- ventilation—laboratory hoods, 611
  - of laser plume, 173
  - noise from, 499
  - of ships, 574
  - of welding, 551
- vinylbenzene—Hygienic Guide, 526
- volatilization—from surface coating, 450

**W**

- weaving—noise hazards, 541
- welding—covered electrode, 551
  - gas-metal arc, 551
  - ventilation of, 551
- wind tunnel—evaluating sampler, 343
- wipe test—radium leak test, 279
- work—acceptable load, 531
  - heart rate and, 490
  - at elevated air pressures, 432

**X**

- x-ray—detmn. of metal dust, 463
  - detmn. of metal fume, 463
  - detmn. of SiO<sub>2</sub>, 632
  - detmn. of sulfur oxides, 386
  - sensitivity of film, 358
  - spectrometer uses, 386

**Y**

- Yant Memorial Lecture, 195

**Z**

- zinc—detmn. in air, food & urine, 469



1968